

San Mateo County Utilities & Sustainability Task Force
Minutes from the Sept. 21, 2006 Meeting

In attendance:

Barbara Pierce, Mayor of Woodside
Sepi Richardson, Brisbane City Council
Nicole Sandkulla, BAWSCA
Bob Cormia, Sustainable Silicon Valley
Jerry Hill, San Mateo County Board of Supervisors
Terry Nagel, Vice Mayor of Burlingame
Bill Dickenson, Belmont City Council
Deborah Gordon, Mayor of Woodside
Mario Panoringan, Colma-Daly City Chamber of Commerce
Bruce Chamberlain, ABAG Energy Watch
Jill Boone, San Mateo County (staff)
Gina Blus, Facilitator (staff)

Not present:

Mukesh Khattar, Oracle

Guests:

Richard Napier, C/CAG
Brian Lee, San Mateo County
Joe La Mariana, San Mateo County
Joel Ibarbia, PG&E
Alex Bingtan, PG&E
Jon Eric Thalman, PG&E

Action items

All Task Force members: please review the draft goals, then provide your feedback to **Gina** no later than **Oct. 16**. A revised draft will be discussed at the October meeting.

- thinking about the overall project, how many goals should we have?
- are the suggested categories the right ones? what's missing? what shouldn't be on the list? what is realistically within this group's sphere of influence?
- which specific goals are the most important ones? what kind of goal will drive the desired behavior, both on the task force and in the broader community?

Don't worry about specific numbers, percentages or dates at this time. We will choose the goal areas first and pick specific targets later. Examples of other group's goals are attached at the end of these minutes.

Jill and Kathy: develop memo about upcoming distribution and transmission upgrades for USTF.

Kathy: provide information on procedures governing Rule 20A and invite speaker from PG&E.

Jill: provide a context map of the elements of energy transmission and distribution and the overseeing agencies.

Notes

Consent calendar:

- The minutes from the August meeting were approved.
- The Actions/Tasks section of the Work Plan were approved, with the addition of specific climate protection initiatives under section 4(b)(vii), including Cool Cities, ICLEI and Sustainable Silicon Valley.
- The report on recent California legislation (SB1 and AB32) was approved.

These documents are all available on the website, <http://www.ccag.ca.gov/USTF.html>.

The Energy Planning Process

Overview: There are three major aspects of getting energy to users: production, transmission and distribution. *Production* is the generation of electricity that can be used to power household, commercial and industrial activities. *Transmission* is the delivery of energy from a power plant to local substations. *Distribution* is the “last mile” of running power lines to homes and businesses.

Transmission is managed by the California Independent System Operator (CAISO) and overseen by the Federal Energy Regulatory Commission (FERC). CAISO manages the process of getting power from plants to the grid and ensuring there is enough energy to meet the state’s needs. Its planning process operates on an annual cycle, with 3-4 public stakeholders’ meetings each year. (Jill attended the August meeting; the next one is in Folsom on Nov. 12, 2006.) At these meetings, CAISO staff identifies potential new transmission projects and provides updates on projects already in development. Transmission projects have a long lead time because of environmental assessment and permitting issues. Public notice is provided for projects planned for the next 10 years.

The Bay Area Assessment (available on the USTF website, in the Task Force Reports folder) was provided at the August stakeholders meeting, and lists projects planned for San Mateo County and other Bay Area counties through 2016. Alex Bintan of PG&E explained the transmission planning process and added some information about a few planned local projects, where an additional transformer will be added to a substation or a transformer’s capacity increased.

Elected officials on the task force noted that the presence of large trucks and virtually any PG&E activity prompts residents to call City Hall in the affected and nearby communities. The officials asked to receive advance notification and explanations about *all* PG&E projects in their area so they can communicate more effectively with their citizens. There was a strong consensus of the elected officials that PG&E needs to communicate with appropriate land use agencies – the cities or county – for all transmission and distribution projects.

Jill will work with Kathy to provide information about upcoming projects to USTF and city managers, and the task force will recommend a process with more communication and collaboration between PG&E and the cities for the future.¹

Unlike transmission, *distribution* is managed by PG&E and overseen by the CPUC. Distribution planning is handled at the local (San Mateo County) level. Distribution plans, which are generally in the 6-month to 2-year timeframe, are generally not made public.

Joel Ibarbia of PG&E's distribution infrastructure planning group identified upcoming distribution projects in San Mateo County. Examples included the addition of a new circuit for a large customer and the installation of a new transformer. These projects are often driven by load growth and the needs of large customers.

Task force officials requested that cities be notified about these projects as well.

Rule 20A, which provides for undergrounding of utilities, is managed at the local distribution level. Funds for this work are allocated annually to each city; PG&E meets with each city to prioritize the areas to be undergrounded with the funds available.

Task force officials requested more information about this procedure. Kathy will arrange for a Rule 20A expert to address USTF at the Oct. meeting.

Line maintenance is also handled at the local level by PG&E and overseen by the CPUC. Overhead lines are each reviewed every 5 years, trees are looked at every year and outage reports are also reviewed annually. Maintenance is scheduled according to urgency.

Reliability is managed under a separate process, in which outages are reviewed biweekly and actions are taken as needed.

Officials asked for more information on how maintenance projects, especially those related to reliability, are scheduled.

Jon Eric Thalman described PG&E's load forecasting process. Load (the capacity of the system to carry and deliver power) is determined by peak demand, which is driven in our

¹ Task force members mentioned the following examples of effective notification process: (1) the Bay Area Air Quality Management District, which provides notice to an affected county whenever a permit is pulled; (2) Caltrain, which gives advance notice to cities for both major and minor crossing upgrades; (3) BAWSCA, which lets City Managers know about possible projects well in advance, then updates them as plans develop, and (4) Caltrans, which provided extensive public notice through multiple channels before closing the Bay Bridge over the Labor Day weekend.

The group suggested that two levels of communications might be appropriate, one for activities inside PG&E property and another for actions outside the gates. Notice to city managers about internal utility activities might suffice, but proactive notice to city staff, officials and the public is needed for projects on city streets.

region by the use of air conditioners on hot summer afternoons. Demand forecasts are based on the relationship between temperature and megawatts (MW). A formula correlating MW with degrees is selected for each region that shares heat and load characteristics, such as the peninsula.

Load is designed to meet a heat storm that has a 1-in-10 chance of occurring (10% likelihood) in a given year. 30+ years of local historical temperature data and energy usage are used to define the ratio for the peninsula, which is then used to project future needs. (See the chart on p. 4 of the Bay Area Assessment, showing a 1% annual growth rate for the peninsula for the next 5 years). Trying to provide capacity for a 1-in-20 or 1-in-50 heat wave would result in overbuilding and cost considerably more.

To prevent underbuilding, the transmission planners get input from the distribution team about new residential or commercial developments and population increases that are expected to increase demand.² Thus, although the model is based on historical use,³ it includes forward-looking estimates as well. In short, the goal is to build enough infrastructure to meet peak energy demand on the few days each year when air conditioners are in widespread use, but no more than that. In the future, PG&E's new smart meters will provide a more detailed view of actual usage by specific users, enabling more accurate forecasts.

There are 28 substations and 71 transformer banks serving distribution load on the peninsula, which operates as a division. The system is designed to be flexible and balanced, with each substation carrying a comparable (and finite) load and fed by multiple lines in case one line goes down. The Bay Area is managed as a whole, so even if the peninsula does not experience extreme demand but the rest of the region does, our power availability may be affected. There are constraints on both energy generation and transmission capacity in our region.

The impact of energy efficiency programs and conservation measures are visible in historical usage data, seen as a drop in demand. Aggressive energy efficiency efforts have allowed the state's energy use to remain flat over the last three decades, compared to the significant growth in usage in all other states.

When older plants are taken offline, new sources of power must be added to the system. In comparing potential new sources of energy, the advantage of distributed generation (such as solar arrays on a home or business, windfarms or other small-scale energy sources) is in avoiding the expensive challenge of building a new power plant. The disadvantages are the lack of a backup system if reliability is needed and inability to take advantage of the economies of scale offered by a centralized system.

² Distribution profiles are created for each substation, based on past usage and projected growth in both employment and population. These individual profiles are then aggregated and balanced to predict the area's total energy needs for the coming year.

³ On days when energy reserves drop below targets, certain large PG&E customers can be taken offline to reduce demand in exchange for paying lower rates. The energy that those large customers would have used is added back into the model to more accurately predict true demand.

Task force officials asked for help to shape policies to drive down energy use in their cities. Until now, local energy efficiency programs have not been linked to the larger picture of local energy management and investments.

Goals

The draft goal sheet was briefly reviewed; task force members are asked to provide feedback via email so a new draft can be discussed at the Oct. meeting.

Stakeholder Input

Citizen and stakeholder input is seen as important, after we have deepened our understanding of the planning process and established our goals.

Miscellaneous

- We will add a roundtable item to future meeting agendas, to permit task force members to share information or announcements with the group.
- Kathy Lavezzo clarified that PG&E's Government Relations department works with city officials. Kathy manages major accounts and works with city staff members.

For the October meeting

Energy 101 (players and context)

Rule 20A procedures

Process for sharing information with cities (short term and long term)

Goals

For the November meeting

Invite Jim Sweeney, advisor to the governor on energy issues

Examples of goals

In the State Energy Action Plan II, high-level goals are listed on pages 1-2; key actions are specified in nine areas. Appendix A lists the goals and status from the first Energy Action Plan.

<http://www.ccag.ca.gov/pdf/USTF/docs/2005%20energy%20action%20plan%20II.pdf>

The Association of Monterey Bay Area Governments Regional Energy Plan identifies objectives, goals and actions in each of four areas, starting on page 14.

<http://www.ccag.ca.gov/pdf/USTF/docs/AMBAGPartIFINAL11April06.pdf>

The San Diego Regional Energy Strategy includes nine goals across five categories, starting on page 3.

http://www.ccag.ca.gov/pdf/USTF/docs/San%20Diego%20Regional_Energy_Strategy_Final_07_16_03.pdf

San Francisco PUC and Department of the Environment Energy Resource Plan includes eight goals, on page 17. <http://www.ccag.ca.gov/pdf/USTF/docs/SF02-resource-plan.pdf>